

We claim:

1. A method of feeding chemical into a liquid flow, according to which method  
5 chemical is fed to the liquid flow by means of a feed liquid, **characterized in that** the chemical mentioned is mixed in an isolated mixing space (154) located in connection with the nozzle casing (80) of the feed device (34) with a mixing liquid, the mixing liquid being fresh water or a circulation liquid obtained from the process, to form a chemical solution prior to feeding it to the liquid flow mentioned.
- 10 2. A method according to claim 1, **characterized in that** the chemical is mixed with the mixing liquid less than 0.5 seconds before the mixture of the chemical and the mixing liquid is mixed with the liquid flow mentioned.
- 15 3. A method according to any of the preceding claims, **characterized in that** the chemical and the mixing liquid are brought to the isolated mixing space (154) in at least two flow paths separated from each other and disposed one inside the other .
- 20 4. A method according to any of the preceding claims, **characterized in that** the chemical solution is fed to the liquid flow mentioned by means of a feed liquid coming from outside the chemical solution flow mentioned.
- 25 5. A method according to claim 4, **characterized in that** process liquid to be fed to the process is used as the feed liquid.
6. A method according to any of the preceding claims, **characterized in that** the mixing of the chemical solution is adjusted by changing the location of the isolated mixing space in relation to the liquid flow duct mentioned.
- 30 7. A method according to any of the preceding claims, **characterized in that** the chemicals to be mixed are  $\text{TiO}_2$ , optical brighteners, paper dyes or silicates.

8. A feeding device for feeding chemical into a liquid flow, the feeding device (34) including at least a nozzle casing (80), and apparatus (84, 88, 144) disposed in connection therewith for supplying feeding liquid to the liquid flow mentioned, **characterized** by means (162) for feeding chemical and means (142) for feeding mixing  
5 liquid to an isolated mixing space (154) disposed in connection with the nozzle casing (80) for producing a chemical solution, said solution being fed to the liquid flow duct (70) mentioned by means of the feeding liquid.
9. A feeding device according to claim 8, **characterized in that** the chemical feed  
10 device mentioned is a thin pipe-like chemical feed duct (162) for feeding small chemical amounts to the mixing space (154).
10. A feeding device according to claim 8, **characterized in that** the mixing liquid  
15 feed device mentioned is a mixing liquid feed duct (142) for feeding mixing liquid to the mixing space (154).
11. A feeding device according to claim 9 and 10, **characterized in that** the  
20 chemical feeding duct (162) mentioned extends to the isolated mixing space (154) centrally inside the feed duct (142).
12. A feeding device according to any of the claims 8 - 11, **characterized in that** the  
isolated mixing space (154) mentioned has been provided at the end of the mixing liquid  
feed device (142) facing the liquid flow duct (70).
13. A feeding device according to any of the claims 8 - 12, **characterized in that**  
25 there are openings (152) provided in the wall of the mixing liquid feed device (142) in connection with the isolated mixing space (154) for feeding the chemical solution of chemical and mixing liquid to the feed liquid flow.
14. A feeding device according to any of the claims 8 - 13, **characterized in that** the  
30 means mentioned for feeding mixing liquid to the liquid flow duct (70) mentioned include at least a feed opening (84) into which also the mixing liquid feed means (142) extend.

15. A feeding device according to the claim 10, **characterized in that** the mixing liquid feed duct (142) mentioned is at least partly located inside the nozzle casing (80) feeding the feed liquid.
- 5 16. A feeding device according to any of the claims 8 - 15, **characterized in that** the chemical feed duct (162) has been secured with means (20, 22) to the mixing liquid feed duct (142).
- 10 17. A feeding device according to the claim 10, **characterized in that** there are means (136, 138) in the mixing liquid feed duct (142) for securing the feed duct (142) to the nozzle casing (80) so that its position can be adjusted.
- 15 18. A feeding device according to any of the claims 8 - 17, **characterized in that** there are means (74, 76) in the feed device (34) for securing the nozzle casing (80) to the liquid flow duct (70).
19. A feeding device according to any of the claims 8 - 18, **characterized in that** the feeding device (34) is adjustable by means of apparatus (94, 136, 138).
- 20 20. A feeding device according to any of the claims 8 - 19, **characterized in that** there is a conical converging portion (82) in the nozzle casing (80), by means of which the cross-sectional area of the flow path of the feed liquid to be supplied to the feeding device (34) via the connection (144) and the opening (88) is reduced in order to increase the flow velocity.
- 25 21. A feeding device according to claim 10, **characterized in that** there is a conical converging portion (148) in the mixing liquid feed duct (142), by means of which cross-sectional area of the flow path of the mixing liquid to be supplied to the feeding device (34) via the connection (146) and the opening (56) is reduced in order to increase the
- 30 flow velocity.

22. A feeding device according to any of the claims 8 - 21, **characterized in that** there are valves (42, 44, 46) in the chemical flow duct (162) and connections (144, 146) to control the liquid flow.
- 5 23. A feeding device according to any of the preceding claims, **characterized in that** the chemical solution feed opening (152) are located inside the liquid flow duct (70) mentioned when the feed device has been secured to the flow duct (70).
24. A feeding device according to any of the preceding claims, **characterized in that**  
10 the chemical solution feed openings (152) are located in the feed liquid feed opening (84).